

We claim:

1. A method of characterizing a risk of future cerebral vasospasm in a subject suffering from a subarachnoid hemorrhage, comprising:

determining the presence or amount of a plurality of subject-derived markers in a sample obtained from said subject, wherein said plurality of markers are independently selected from the group consisting of specific markers of neural tissue injury, markers related to blood pressure regulation, markers related to inflammation, and markers related to apoptosis; and

correlating the presence or amount of said plurality of markers to said risk of a future cerebral vasospasm in said subject.

2. A method according to claim 1, wherein said plurality of markers are independently selected from the group consisting of adenylate kinase, brain-derived neurotrophic factor, calbindin-D, creatine kinase-BB, glial fibrillary acidic protein, lactate dehydrogenase, myelin basic protein, neural cell adhesion molecule (NCAM), c-tau, neuropeptide Y, neuron-specific enolase, neurotrophin-3, proteolipid protein, S-100 β , thrombomodulin, protein kinase C γ , atrial natriuretic peptide (ANP), pro-ANP, B-type natriuretic peptide (BNP), NT-pro BNP, pro-BNP, C-type natriuretic peptide, urotensin II, arginine vasopressin, aldosterone, angiotensin I, angiotensin II, angiotensin III, bradykinin, calcitonin, procalcitonin, calcitonin gene related peptide, adrenomedullin, calcyphosine, endothelin-2, endothelin-3, renin, urodilatin, acute phase reactants, cell adhesion molecules, C-reactive protein, interleukins, interleukin-1 receptor agonist, monocyte chemotactic protein-1, caspase-3, lipocalin-type prostaglandin D synthase, mast cell tryptase, eosinophil cationic protein, KL-6, haptoglobin, tumor necrosis factor α , tumor necrosis factor β , Fas ligand, soluble Fas (Apo-1), TRAIL, TWEAK, fibronectin, macrophage migration inhibitory factor (MIF), vascular endothelial growth factor (VEGF), caspase-3, cathepsin D, and α -spectrin, or markers related thereto.

3. A method according to claim 1, wherein said plurality of subject-derived markers comprise at least one specific marker of neural tissue injury.

4. A method according to claim 3, wherein said plurality of subject-derived markers comprise at least one specific marker of neural tissue injury selected from the group consisting of adenylate kinase, brain-derived neurotrophic factor, calbindin-D, creatine kinase-BB, glial

fibrillary acidic protein, lactate dehydrogenase, myelin basic protein, neural cell adhesion molecule (NCAM), neuron-specific enolase, neurotrophin-3, proteolipid protein, S-100 β , thrombomodulin, and protein kinase C γ , or markers related thereto.

5. A method according to claim 4, wherein said plurality of subject-derived markers comprise NCAM or a marker related thereto.
6. A method according to claim 1, wherein said plurality of subject-derived markers comprise at least one marker related to apoptosis.
7. A method according to claim 6, wherein said plurality of subject-derived markers comprise at least one marker related to apoptosis selected from the group consisting of caspase-3, cathepsin D, and α -spectrin, or markers related thereto.
8. A method according to claim 6, wherein said plurality of subject-derived markers comprise caspase-3 or a marker related thereto.
9. A method according to claim 1, wherein said plurality of subject-derived markers comprise at least one marker related to inflammation.
10. A method according to claim 9, wherein said plurality of subject-derived markers comprise at least one marker related to inflammation selected from the group consisting of acute phase reactants, cell adhesion molecules, C-reactive protein, interleukins, interleukin-1 receptor agonist, monocyte chemotactic protein-1, caspase-3, lipocalin-type prostaglandin D synthase, mast cell tryptase, eosinophil cationic protein, KL-6, haptoglobin, tumor necrosis factor α , tumor necrosis factor β , Fas ligand, soluble Fas (Apo-1), TRAIL, TWEAK, fibronectin, macrophage migration inhibitory factor (MIF), and vascular endothelial growth factor (VEGF), or markers related thereto.
11. A method according to claim 9, wherein said plurality of subject-derived markers comprise VEGF or a marker related thereto.
12. A method according to claim 1, wherein said plurality of subject-derived markers comprise at least one marker related to blood pressure regulation.
13. A method according to claim 12, wherein said plurality of subject-derived markers comprise at least one marker related to blood pressure regulation selected from the group consisting of atrial natriuretic peptide (ANP), pro-ANP, B-type natriuretic peptide (BNP), NT-

pro BNP, pro-BNP C-type natriuretic peptide, urotensin II, arginine vasopressin, aldosterone, angiotensin I, angiotensin II, angiotensin III, bradykinin, calcitonin, procalcitonin, calcitonin gene related peptide, adrenomedullin, calcyphosine, endothelin-2, endothelin-3, renin, and urodilatin, or markers related thereto.

14. A method according to claim 12, wherein said plurality of subject-derived markers comprise BNP or a marker related thereto.

15. A method according to claim 1, wherein said plurality of subject-derived markers comprise at least one specific marker of neural tissue injury, at least one marker related to inflammation, and at least one marker related to apoptosis.

16. A method according to claim 1, wherein said plurality of subject-derived markers comprise at least one marker related to blood pressure regulation.

17. A method according to claim 1, wherein said plurality of subject-derived markers comprise one or more markers selected from the group consisting of IL-1ra, C-reactive protein, von Willebrand factor (vWF), vascular endothelial growth factor (VEGF), matrix metalloprotease-9 (MMP-9), neural cell adhesion molecule (NCAM), BNP, and caspase-3.

18. A method according to claim 7, wherein said plurality of subject-derived markers comprise VEGF, NCAM, and caspase-3.

19. A method according to claim 1, wherein the sample is from a human.

20. A method according to claim 1, wherein the sample is selected from the group consisting of blood, serum, and plasma.

21. A method according to claim 1, wherein the assay method is an immunoassay method.

22. A method according to claim 1, wherein the correlating step comprises determining the concentration of each of said plurality of subject-derived markers, and individually comparing each marker concentration to a threshold level.

23. A method according to claim 1, wherein the correlating step comprises determining the concentration of each of said plurality of subject-derived markers, calculating a single index

value based on the concentration of each of said plurality of subject-derived markers, and comparing the index value to a threshold level.

24. A method according to claim 1, wherein the method comprises determining a temporal change in at least one of said subject-derived markers, and wherein said temporal change is used in said correlating step.